Work Order ID Friday, June 10, 2011 1.	70527 1:42:46 AM										Page 1
Item ID: D3454-5 Revision ID: Item Name: Bushing			Accept					Setup	Start Stop		
Start Date: 6/10/201 Required Date: 6/15/201 Reference:	~ .			Cust Item I Customer:	D:					1 188 (1181 9	11 3 11 3 11 3
Approvals: Proces QC: _	s Plan:	Date:	Tooling: SPC (Y/N):		ate:	· .		Run	Start Stop		
Sequence ID/ Work Center ID	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Rejo Qty		Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr										•
D3454	Rev B										
100 Hardinge Hardinge CNC Lathe Small	Hardinge CNC LATH Memo		0.00 0.00 & DWG D3454,□FOLIO				20		Ø		
S .	REV:_ _	MEDWG REV:	106/4	QUIRED					,		
QC Quality Control	QC2- Inspect parts off Memo	machine FAI/FAIB	0.00				20)		b		

5 416/14

120

QC8- Inspect parts - second check

0.00

Quality Control

Memo

0.00

Dart Aerospace Ltd

	•									
W/O:			W	ORK ORDER CH	ANGES					
DATE	STEP	PRO	OCEDURE CH	ANGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
				·						
	Í									
Part No	:	PAR #:	Fault Cate	egory:	N	CR: Yes	No DQ	A:	Date: _	
	R	esolution:	Disposition	on:	a	A: N/C Cl	osed:		Date: _	
NCR:		WORK ORE	ER NON-CONFO	RMANO	E (NCR)				
DATE STED	Description of NC	Corrective Action		Section B	Verification		Approval	Approval		
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	otion	Sign & Date			Chief Eng	QC Inspector
•										
				÷						

Work Order ID 70527

Friday, June 10, 2011 11:42:46 AM



Page 2

Item ID:

D3454-5

Accept



Setup Start



Revision ID:

Start Date:

Item Name:

Required Date: 6/15/2011

Bushing

6/10/2011

Start Qty: 20.00

Reg'd Oty: 20.00



Cust Item ID:

Customer:

Tool ID

Reference:

Approvals:

Process Plan:

Date: _____ Date:

Tooling:

SPC (Y/N):

Set Up/

Run Hours

Date:

Date:

Tool # Plan

Code

Run

Reject

Otv

Accept

Otv

Start Stop

Stop



Number Stamp

Insp.

Reject

Sequence ID/ Work Center ID

130

Small Fab

Small Fab

Operation Description

Small Fab

Memo

Deburr if necessary.

0.00

0.00

1156114

140

Quality Control

QC5- Inspect part completeness to step on WA

150

Packaging

Packaging

Identify as per dwg & Stock Location: 054

0.00

Memo

Memo

0.00

Dart Aerospace

	. oopaoo .										
W/O:			V	VORK ORDER (CHANGE	S					
DATE	STEP	PRO	PROCEDURE CHANGE			Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
				,							
Part No	Part No: PAR #:		Fault Category:			NCR: Yes	No DQ	DQA: Date:			
	Res	solution:	Disposit	ion:		QA: N/C CI	osed:	·····	Date: _		
NCR:		,	WORK OR	DER NON-CON	FORMAN	ICE (NCR	3)				
DATE	STEP	Description of NC		Corrective Action			Verific	cation	Approval	Approval	
	O.L.	Section A	Initial Chief Eng	Action Des		Sign & Date	Secti	on C	Chief Eng	QC Inspector	
										į	
-											
					ļ						
	1				1				1	1	

Work Order ID 70527

Friday, June 10, 2011 11:42:46 AM



Page 3

Item ID:

D3454-5

Accept



Setup Start



Revision ID:

Item Name:

Bushing

Start Date: 6/10/2011 **Start Qty: 20.00**

Required Date: 6/15/2011

Req'd Qty: 20.00

Cust Item ID:

Customer:

Reference:

A	nn	rai	, al	٠.
A	DU	rov	y at I	S:

Process Plan:

Date: _____

Date:

Tooling:

SPC (Y/N):

Date: Date: Run Start

Stop

Stop

Sequence ID/

Work Center ID

160

QC Quality Control Operation Description

QC21- Final Inspection - Work Order Release

Memo

Set Up/ Run Hours

0.00

0.00

Tool ID

Tool # Plan Code Accept Qty

Reject Qty

Reject Number

Insp.

Stamp

MF 11-06-14

Dart Aerospace Ltd

	oopao									
W/O:			W	ORK ORDER CH	ANGES					
DATE	STEP	PRO	CEDURE CH	ANGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No	.	PAR #:	Fault Cat	egory:	NC	R: Yes N	No DQ	A :	Date:	
	R	esolution:	Dispositi	on:	Q <i>A</i>	: N/C Clo	sed:		Date: _	
NCR:			WORK ORE	DER NON-CONFO	DRMANC	E (NCR)				
DATE	STEP	Description of NC	Initial	Corrective Action	Section B	Sign &	Verific		Approval	Approval
		Section A	Initial Chief Eng	Action Descri Chief Eng	puon	Date	Section	on C	Chief Eng	QC Inspector
							-			
							!		i	

Picklist Print

Friday, June 10, 2011 11:42:52 AM

Work Order ID: 70527

D3454-5 Parent Item:

Parent Item Name: Bushing



Start Date: 6/10/2011

Required Date: 6/15/2011

Page 1

Start Qty: 20.00

Required Qty: 20.00

Comments:

IPP REV. A 05.11.17

New Issue

EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Prima Item Locati	•	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M303R0.750		Purchased	No		100	f	135.0000	0.0375	0.789474		_	
									12	1//	/</td <td>\checkmark</td>	\checkmark

303 Round Bar 0.750

Location	Loc Oty	Loc Code	
MAT028	135		
117328	39		
117798	96		-

Dart Aerospace Ltd

	•									
W/O:			W	ORK ORDER CH	IANGES	3				
DATE	STEP	PR	PROCEDURE CHANGE			Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No: PAR #:			Fault Cate	gory:		NCR: Yes	No DQ	A:	Date:	**************************************
	Res	solution:	Dispositio	n:		QA: N/C C	losed:		Date: _	
NCR:			WORK ORD	ER NON-CONF	PRMAN	CE (NC	R)			
DATE	STEP	Description of NC	Initial	Corrective Action Action Descri	Section	B Sign	verific		Approval	Approval
		Section A	Chief Eng	Chief Eng	puon	Date		on C	Chief Eng	QC Inspector
		1000								
·										
									1	

DART AEROSPACE LTD	Work Order:	70527
Description: Bushing	Part Number:	D3454-5
Inspection Dwg: D3454 Rev: B		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X First Article	Prototype
-----------------	-----------

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.250	+0.005/-0.000	0,251			7-12	
Ø0.372	+0.000/-0.005	0.370	/			
0.400	+0.005/-0.000	-4025				
Ø0.75	+0.008/-0.001	8.750				
0.060	+0.010/-0.000	-065				
/						

Measured by:	12	Audited by:	RO	Prototype Approval:	N/A
Date:	6156/17	Date:	11.6.14	Date:	N/A

Rev	Date	Change	Revised by	Approved
Α	06.09.01	New Issue	KJ/JLM	i
В	07.01.17	0.60 dimension removed	KJ/JLM	1
С	07.09.06	0.060 dimension added	KJ/JLM ,	
D	09.05.04	Tolerance for 0.060 revised	KJ/DD	Sul
				//

Dart Aerospace Ltd	Dart	Aeros	pace	Ltd
--------------------	------	--------------	------	-----

Dart Ae	rospace	e Ltd									
W/O:				W	ORK ORDER CHANG	ES					
DATE	STEP	PRO	OCEDUR	E CHA	NGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No: PAR #: Fa		Fau	t Cate		_ NCI	R: Yes	No DC	A:	_ Date: _		
		Disp	isposition: QA: N/C Closed: Dat				Date: _				
NCR:			WORK	ORD	ER NON-CONFORM	ANCE	(NCR)			
DATE	STEP	Description of NC		Corrective Action Section B		ion B		Verif	Verification	Approval	Approval
DAIL	J.L.	Section A	Initi Chief		Action Description Chief Eng		Sign & Date	Sec	tion C	Chief Eng	QC Inspector
			·								Ē
									-		
							:				
			\ 								

NOTE: Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE



DESIGN RI	•	DRAWN BY RF	DART AERO HAWKESBURY, O	
CHECK	ED #	APPROVED	DRAWING NO.	REV. B SHEET 1 OF 1
DATE	M	<u> </u>	TITLE	SCALE
	05.1	2.05	BUSHING	2:1
Α	0:	5.09.02	NEW ISSUE	
В	0:	5.12.05	REVISE -5/-7	

RELEASED 05.12.09

C^{+0.005} E $\emptyset A_{-0.000}^{+0.005}$ R0.020 ØB^{+0.000} -0.005 0.015 x 45° CHAMFER SHOP COPY D^{+0.010} **RETURN TO**

ENGINEERING UNCONTROLLED COPY

SUBJECT TO AMENDMENT

WITHOUT NOTICE

WORK ORDER NO. 70527

D3454-X

1) SPECIFICATION: D3454-X BUSHING

DASH No.

pl 11-66-10

WHERE 'X' IS THE SIZE PER THE FOLLOWING TABLE:

DAS No		B (in)	C (in)	O (in)	E (in)
-1	0.316	0.435	0.420	0.060	1.00
-3	0.316	0.435	0.400	0.060	0.75
5		0.372	0.400	0.060	0.75
-7	0.250	0.372	0.343	0.060	0.75



NOTES:

- 1) MATERIAL: AISI 303 SS ROUND BAR (REF. DART SPEC. M303R)

- 1) MATERIAL: AISI 303 SS ROUND BAR (REF., DART SPEC. M303R)
 2) FINISH: NONE
 3) IDENTIFY WITH P/N USING FINE POINT PERMANENT MARKER
 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
 5) ALL DIMENSIONS ARE IN INCHES
 6) BREAK ALL UNMARKED SHARP EDGES 0.005 TO 0.010

COPYRIGHT © 2005 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

Dart	Aeros	pace	Ltd
------	--------------	------	-----

W/O:			1	WORK ORDER C	HANGES			7.44	
DATE STEP PROCEDURE					Ву		Date Q1	Approval	Approval QC Inspector
		•							
							:		
								1.	
								r	
Part No: PAR #: Fau Resolution: Disp		Fault C	ategory:	NCR: Y	es No	DQA: _	Date:		
		Dispos	osition: QA: N/C Clos			osed: Date:			
NCR:			WORK OF	RDER NON-CONF	ORMANCE (N	CR)			
DATE	STEP	STED Description of NC	Corrective Action - Section B				Verification	n Approval	Approval
DAIL	J.L.	Section A	Initial Chief Eng	Action Desci		gn & ate	Section C		QC Inspector
								å	
		·							
i .	1		1 I	1	i			1	1

NOTE: Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE